

Lava Beds National Monument

Teacher Activity Guide

Introduction

This teacher activity guide contains four activity units. The subject matter includes evaluations of preconceived notions of bats, bat habitats, and the bat populations at Lava Beds National Monument. All activities are designed for use in the classroom. Each unit contains background information for use by the teacher. Following is at least one activity to be incorporated into the classroom.

Most materials necessary to present these activities have been included in this package. These activities are written for upper elementary students, but many can be expanded or modified for other grade levels.

The primary goal of this activity guide is to enable the teacher to present information in the classroom before conducting a field trip to the monument. We hope that by using this guide the visit to Lava Beds will be a comprehensive educational experience.

Overview of Units

Unit 1 – Activity A: Bat Attitudes

Adapted from “Discover Bats!” by Merlin D. Tuttle

OBJECTIVES:

Students will dispel common myths about bats, while using mathematics to draw conclusions about class attitudes about bats before and after learning about bats.

MATERIALS:

- Video: Discover BATS! Chapter One: Bats How They Live (0:00-12:00)
- Overhead of What I Know About Bats (*optional*)
- Overhead of How Do we Feel About Bats (*optional*)

You will need to provide:

- Overhead Projector (*optional*)
- Copies of *Bat Attitudes: Student Log Sheet*
- Copies of *Bat Attitudes: Home Log Sheet* (extension)

SUBJECTS:

Mathematics, Reading and Listening Comprehension

SKILLS:

Discussion, graphing and chart making, understanding fears and prejudices.

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Overview of Units

Unit 1 – Activity B: Cultural Attitudes

OBJECTIVES:

Students will dispel common myths about bats and learn about other culture's beliefs and ideas about bats through discussion and use of language arts.

MATERIALS:

- Overhead projector if desired

SUBJECTS:

English, language arts.

SKILLS:

Discussion, English, understanding fears and prejudices.

Unit 2 – Activity A: Bat Adaptations

Objectives:

Students will compare human and bat anatomy and learn how physical structures in bats help them survive in their habitat.

Materials:

- Video: Kids Discover Bats, Chapter One: Kinds of Bats (0:00-5:20)
- Blindfold
- Bat overhead (optional)
- Overhead Projector (optional)

Subjects:

Life Science

Skills:

Compare and Contrast, acting out scenarios

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Overview of Units

Unit 3 – Activity A: What’s in a Habitat?

Objectives:

Students will learn the necessary components all life forms need to live in a habitat: water, food and shelter. They will understand that humans also need these components as do bats. Students will learn about the different places bats use as shelter, how they get water and the different types of food they eat.

Materials:

- Overheads (optional)
- Video: Discover Bats! Valuable Neighbors.
- Video: Kids Discover Bats: Chapter 2: What Bats Eat (5:21-12:39)

You will need to provide

- Piece of blank paper for each student
- Art supplies like crayons or colored pencils if you like
- Overhead Projector (optional)

Subjects:

Life Science, Art

Skills:

Compare and Contrast

Unit 3 – Activity B: Limiting Factors to Habitat

Objectives:

Students will interpret the significance of loss or change in habitat in terms of people and wildlife.

Materials:

You will need to provide

- A large space for activity

Subjects:

Life Science

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Overview of Units

Unit 4 – Activity A: Bats of Lava Beds

Objectives

Students will learn about four of the 14 different bat species which live at Lava Beds National Monument and understand the importance of cave closures.

Materials

- Bat ID Sheets (2 copies of 4 bat species)
- Bat cards
- Overheads (optional)

You will need to provide

- Copies of *Bats of Lava Beds: Student Log Sheet*
- Poster making materials
- Paper clips, 70 per group
- Metric Rulers
- Overhead Projector (optional)

Subjects

Reading Comprehension, Life Science, Mathematics

Skills

Reading, group work, writing, investigation, and mathematics

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Overview of Units

Unit 4 – Activity B: Understanding Bat Populations

Lava Beds & Bats

There are two ways to conduct this activity, Alternative A and B, please use both or whichever is most suitable for you class and the time of year.

Objectives

Students will understand different methods of counting and what that means to bat population estimates. Students will learn about bat population counts being done by Lava Beds Resource Management staff members.

Materials

You will need to provide

- Copies of Bat Math: Student Log Sheet (extension)
- Tape measure (extension)

Alternative A

- Cookies with chocolate chips in them
- Sieve(s) or screen
- Cups
- Water

Alternative B

- Something to write on outside
- Watch with a second hand or stopwatch

Subjects

Life Science, mathematics

Skills

Group work, investigation, mathematics, scientific inquiry.